

METRIC SUBSTRUCTURE NOTES REVISED 12-06-2010

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L 001 STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR ANCHOR BOLTS.
H 001 *** 7-1 REINFORCEMENT, STIRRUPS ***

L 002 HOOKS ON "V" BARS MAY BE TURNED AS NECESSARY FOR PLACING REINFORCING STEEL.
H 002 *** ***

L 003 * * THE _____ SPIRAL REINFORCING STEEL SHALL BE W20 OR D-20 COLD DRAWN
H 003 WIRE OR #13 PLAIN OR DEFORMED BAR.
*** 7-4 COLUMNS, REINFORCING STEEL ***

L 004 * * THE _____ SPIRAL REINFORCING STEEL SHALL BE W31 OR D-31 COLD DRAWN
H 004 WIRE OR #16 PLAIN OR DEFORMED BAR.
*** 7-7 NOTES ***

L 005 FOR EPOXY PROTECTIVE COATING, SEE SPECIAL PROVISIONS.
H 005 *** FIG. 7-9 ***

L 006 FOR PILE SPLICE DETAILS, SEE END BENT _____.
H 006 *** ***

L 007 DETAILED DRAWINGS FOR FALSEWORK AND FORMS FOR THIS _____ SHALL BE
H 007 SUBMITTED. SEE SHEET SNSM.
*** 12-7 ***

L 008 FOR PIPE INSERT DETAILS, SEE BEARINGS SHEET.
H 008 *** 7-1 GENERAL, ANCHOR BOLTS ***

L 009 BACKWALL SHALL BE PLACED BEFORE APPLYING THE EPOXY PROTECTIVE COATING.
H 009 *** 7-1 EPOXY PROTECTIVE COATING ***

L 011 THE TOP SURFACE AREAS OF THE _____ CAPS SHALL BE CURED IN ACCORDANCE
H 011 WITH THE STANDARD SPECIFICATIONS EXCEPT THE MEMBRANE CURING COMPOUND METHOD
SHALL NOT BE USED.
*** 7-1 EPOXY PROTECTIVE COATING ***

L 012 THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT THE CENTERLINE JOINT IN
H 012 THE DECK SLAB (CONTROL LINE) IS OFFSET FROM THE CENTERLINE BENT.
*** 7-1 GENERAL, PLAN LAYOUT ***

L 013 THE TOP SURFACE OF THE CAP EXCEPT THE BRIDGE SEAT BUILDUPS SHALL BE SLOPED
H 013 TRANSVERSELY FROM THE FILL FACE TO THE BACK FACE AT THE RATE OF 2 %.
*** FIG. 7-9 ***

L 014 THE CONCRETE IN THE SHADED AREA OF THE WING SHALL BE POURED AFTER THE JOINT
H 014 BETWEEN THE DECK AND THE APPROACH SLAB HAS BEEN SAWED AND THE PARAPET AND END
POST ARE CAST IF SLIP FORMING IS USED.
*** FIG. 7-17 *** (ONLY USED WITH A BLOCKOUT IN WING)

L 015 THE CONCRETE IN THE SHADED AREA OF THE WING SHALL BE POURED AFTER THE PARAPET
H 015 AND END POST ARE CAST IF SLIP FORMING IS USED.
*** FIG. 7-18 *** (ONLY USED WITH A BLOCKOUT IN WING)

L 016 COFFERDAMS SHALL NOT BE DEWATERED WHEN THE WATER ELEVATION IS ABOVE
H 016 EL. _____.
*** 7-6 FOUNDATION EXCAVATION ***

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L 017 ANCHOR BOLTS SHALL BE SET BY DRILLING HOLES AND GROUTING AFTER THE BREASTWALL HAS BEEN BACKFILLED TO 300mm BELOW BRIDGE SEAT. CAREFUL ATTENTION SHALL BE GIVEN TO ANTICIPATED MOVEMENT OF BREASTWALL DURING BACKFILLING IN ORDER THAT REINFORCING WILL NOT FOUL THE DRILLED ANCHOR BOLT HOLES.

H 017 *** 7-8 REINFORCED CONCRETE ***

L 018 THE CONTRACTOR, AT HIS OPTION, MAY SUBSTITUTE HP 310 X 79 STEEL PILES AT (END BENT NO.____) (BENT NO.____) IN LIEU OF 305mm PRESTRESSED CONCRETE PILES AT NO ADDITIONAL COST TO THE DEPARTMENT.

H 018 *** 5-2 PILES & 7-5 PRESTRESSED CONCRETE PILES ***

L 019 NO SEPARATE PAYMENT SHALL BE MADE FOR PIER SCOUR PROTECTION. THE ENTIRE COST OF SAME SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR "FOUNDATION EXCAVATION".

H 019 *** 7-6 STREAM CROSSINGS ***

L 020 ALL STEEL IN THE DRILLED PIERS IS INCLUDED IN THE PAY ITEMS FOR "REINFORCING STEEL" AND "SPIRAL COLUMN REINFORCING STEEL" OR "EPOXY COATED SPIRAL COLUMN REINFORCING STEEL".

H 020 *** 7-7 NOTES ***

L 021 THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT THE LONGITUDINAL REINFORCEMENT FOR THE DRILLED PIERS IS DETAILED WITH ONE METER OF EXTRA LENGTH.

H 021 *** 7-7 NOTES ***

L 022 SPLICING OF THE LONGITUDINAL BARS IN THE DRILLED PIER WILL NOT BE PERMITTED.

H 022 *** 7-7 NOTES ***

L 023 THE LOCATION OF THE CONSTRUCTION JOINT IN THE DRILLED PIERS IS BASED ON AN APPROXIMATE GROUND LINE ELEVATION. IF THE CONSTRUCTION JOINT IS ABOVE THE ACTUAL GROUND LINE ELEVATION, THE CONTRACTOR SHALL PLACE THE CONSTRUCTION JOINT 300mm BELOW THE GROUND LINE.

H 023 *** 5-2 DRILLED PIERS AND 7-7 NOTES ***

L 024 MECHANICAL COUPLERS SHALL BE USED TO JOIN THE LONGITUDINAL DRILLED PIER REINFORCING STEEL TO THE COLUMN REINFORCING STEEL. THE HEIGHT OF THE COUPLERS SHALL BE STAGGERED ON ALTERNATING BARS BY 300mm AND THE DRILLED PIER AND COLUMN STEEL SHALL BE CUT ACCORDINGLY. SEE SPECIAL PROVISIONS FOR MECHANICAL BUTT SPLICING FOR REINFORCING STEEL.

H 024 *** 7-7 NOTES ***

L 025 THE STEEL PILE TIP SHALL NOT BE INCLUDED IN DETERMINING THE LENGTH OF PILE FOR PAYMENT. FOR STEEL TIPS, SEE SPECIAL PROVISIONS.

H 025 *** FIG. 7-27 ****

L 026 THE CONTRACTOR SHALL PROVIDE FOR INSTALLATION OF THE 102mm DIAMETER DRAIN PIPE THROUGH THE WING WALL AS REQUIRED FOR REINFORCED BRIDGE APPROACH FILLS, SEE THE ROADWAY PLANS. REINFORCING STEEL IN THE WING WALL MAY BE SHIFTED AS NECESSARY TO CLEAR THE DRAIN PIPE.

H 026 *** 7-2 TURNED BACK WINGS

L 027 NO SEPARATE PAYMENT WILL BE MADE FOR FURNISHING AND INSTALLING THE PVC PLASTIC PIPE DRAINS, HARDWARE, CLOTH AND FASTENERS. THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE FOR THE SEVERAL PAY ITEMS.

H 027 *** FIG. 7-10 ***

L 028 FOR MSE RETAINING WALLS, SEE SPECIAL PROVISIONS.

H 028 *** 12-14 PROPRIETARY RETAINING WALL AND ABUTMENT STRUCTURES ***

L 029 THE WATER/CEMENT RATIO FOR CONCRETE PILES SHALL NOT EXCEED 0.40.
H 029 *** 12-13 CORROSION PROTECTION MEASURES ***

L 030 THE COST OF THE FILTER FABRIC SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR
PLAIN RIP RAP CLASS II.
H 030 *** POLICY MEMO 4-28-04 ***

L 031 CENTER UTILITY IN BLOCKOUT AND FILL ANNULAR SPACE AROUND UTILITY PIPE WITH
JOINT FILLER IN ACCORDANCE WITH STANDARD SPECIFICATION ARTICLE 1028-1.
H 031 ***POLICY MEMO 6-08-04 ***

L 032 NO SEPARATE PAYMENT SHALL BE MADE FOR ANY ADDITIONAL STEEL REQUIRED IN
CONSTRUCTION OF DRILLED PIER AS THIS IS CONSIDERED INCIDENTAL TO THE LINEAR
METER PRICE FOR DRILLED PIER.
H 032 ***POLICY MEMO 9-01-04 ***

L 033 EPOXY COAT THE [END] BENT CAP AFTER ADJUSTMENTS ARE MADE TO BEARINGS AND
ANCHOR BOLTS ARE GROUTED.
H 033 *** POLICY MEMO 9-07-04 ***

L 034 GALVANIZE THE FULL LENGTH OF EACH INTERIOR BENT PILE IN ACCORDANCE WITH
SECTION 1076 OF THE STANDARD SPECIFICATIONS.
H 034 *** POLICY MEMO 9-9-2009 ***

L 035 GALVANIZE THE TOP OF EACH INTERIOR BENT PILE A MINIMUM OF _ METERS. GALVANIZE
IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS.
H 035 *** POLICY MEMO 9-9-2009 ***

L 036 FOR STEEL PILE SPLICER, SEE SPECIAL PROVISIONS.
H 036 *** 7-6 COMPOSITE PILES ***

L 037 FOR STEEL PILE TIPS, SEE SPECIAL PROVISIONS.
H 037 *** 7-6 COMPOSITE PILES ***